



**ÇANAKKALE ONSEKİZ MART UNIVERSITY
AGRICULTURE OF FACULTY**

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BOOK OF PROCEEDINGS AND ABSTRACTS

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**INTERNATIONAL BALKAN
AGRICULTURE CONGRESS**

BOOK OF PROCEEDINGS AND ABSTRACTS

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From Vineyards to Global Markets: The Evolution and Trends, Opportunities and Threats of Grape and Wine Industries in Portugal and Türkiye

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Abstract

The global grape and wine industry is a vital agricultural sector encompassing various applications such as table grapes, raisins, juice, and wine production. This paper addresses a gap in the literature by providing a comparative analysis of the evolution, trends, opportunities, and threats within the grape and wine industries of Portugal and Türkiye, two countries with rich viticultural histories and cultural ties but with distinct market dynamics and strategic approaches to grape utilization.

To ensure a robust comparative analysis, the study uses data from the Food and Agriculture Organization (FAO), the International Organization of Vine and Wine (OIV), and national statistical agencies and sectorial bodies, to examine the evolution and current trends in Portuguese and Turkish markets and their position in the global market. The findings highlight the distinct market trajectories: Portugal continues to consolidate its position as a major wine producer and exporter with established global markets, while Türkiye's market remains fragmented, with potential growth in both wine and non-wine segments, including domestic consumption and international trade, despite facing significant regulatory and socio-political challenges.

The strategic analysis identifies opportunities such as Portugal's capacity to further enhance its wine export strategies and Türkiye's potential to expand both domestic consumption and exports potential across various grape products. However, it also highlights threats, including increasing global competition and regulatory challenges in Portugal, alongside socio-political and regulatory barriers that could impede Türkiye's wine sector growth.

This paper contributes to the existing literature by providing a nuanced understanding of the distinct paths taken by Portugal and Türkiye, and strategic insights into their market positioning. The findings offer valuable implications for producers, marketers, and policymakers, emphasizing how these countries can leverage their unique strengths in grape production and address challenges to achieve sustainable growth in both wine and other grape-related rapidly evolving global markets.

Keywords: Grapes and wine production, International trade, Table grapes and wine consumption, Comparative market analysis

Introduction

The global grape and wine industry is a cornerstone of agricultural and economic development, encompassing diverse applications such as table grapes, raisins, juice production, and winemaking. This industry plays a critical role in the global economy, contributing significantly to international trade and cultural heritage. Grapes, in their various forms, are not only essential for dietary consumption but also integral to multiple industrial processes. Understanding the dynamics and trends within these markets is

crucial for navigating their complexities and fostering sustainable growth (FAO, 2023a, 2023b, 2023c; OIV, 2023a, 2023b).

This study focuses on Portugal and Türkiye, two nations with rich viticultural histories but contrasting market dynamics and approaches to grape utilization. Portugal exemplifies an established, traditional wine producer with a robust export market and stable domestic consumption, positioning itself as a key player in the global wine industry (Rebelo & Baptista, 2024). In contrast, Türkiye represents a unique case of a predominantly non-wine-drinking culture, where grapes serve a broader range of applications, including table grapes and raisins, alongside a growing but smaller wine segment (Meininger's International, 2024). Analyzing these two nations provides valuable insights into how distinct cultural, economic, and regulatory contexts shape their positions in the global grape and wine markets.

The primary objective of this study is to examine the evolution and trends in the grape and wine industries of Portugal and Türkiye, identifying opportunities and threats within their respective markets. By leveraging data from authoritative sources such as the Food and Agriculture Organization (FAO), the International Organization of Vine and Wine (OIV), and national statistical agencies, the study seeks to provide a comprehensive comparative analysis of these countries' market dynamics. This includes exploring vineyard areas, grape production, trade flows, and *per capita* consumption to understand their global positioning (Akdemir, 2022; FAO, 2023a, 2023b, 2023c; GAIN, 2022, 2024; Guler et al., 2021; Soylemezoglu et al., 2016; TGDF, 2021; TÜİK, 2024).

This study is guided by several key research questions aimed at understanding the dynamics of the grape and wine markets in Portugal and Türkiye. The primary research question focuses on how these markets have evolved over recent decades concerning vineyard area, grape production, and market segmentation, including wine, table grapes, and raisins. It also examines global trade and consumption patterns, identifying the key trends shaping these markets in both countries.

Secondary research questions delve deeper into specific aspects of these markets. They investigate the comparative differences and similarities between Portugal and Türkiye, particularly in terms of grape utilization. Another critical area of inquiry is the comparison of market structures and consumer preferences in both countries with global trends. Furthermore, the study explores how cultural,

religious, regulatory, and economic factors have influenced the development of grape and wine markets in Portugal and Türkiye, while anticipating future trends. It also examines the primary opportunities and threats facing the grape and wine industries in these countries and assesses how each can leverage or mitigate these in the context of global market dynamics. Lastly, the research seeks to determine how Portugal and Türkiye can optimize their strategies in grape production and other grape market segments to achieve sustainable growth and increase their global competitiveness.

The paper begins by providing a comprehensive analysis of the global grape and wine industry. It highlights major producers, consumption patterns, and emerging markets, setting the stage for understanding the broader context in which Portugal and Türkiye operate. Historical data is analyzed to trace the evolution of grape and wine production, exports, and consumption globally. This examination considers factors such as international trade policies, technological advancements, and shifts in consumer behavior that have shaped current trends (Soare et al., 2012). By situating Portugal and Türkiye within this global context, the study identifies their strategic market positioning, opportunities, and threats.

Subsequent sections focus on a detailed analysis of the grape and wine sectors in Portugal and Türkiye. Portugal's position in the global wine market is examined, with attention to challenges and opportunities, including the role of geographical indications and key industry players. Türkiye's grape and wine market are similarly analyzed, with a focus on domestic policies, cultural influences, and market structure. The comparative analysis highlights both commonalities and differences in the two countries' approaches to production, marketing, and consumption (Meininger's International, 2024; Rebelo & Baptista, 2024).

The discussion synthesizes findings from global, Portuguese, and Turkish contexts, providing insights into broader trends likely to shape the future of the wine industry. The paper concludes with strategic recommendations for producers, marketers, and policymakers, offering guidance on how to navigate the evolving market landscape. By providing a nuanced understanding of the global grape and wine markets, this study contributes valuable knowledge to literature, with specific implications for both markets.

Literature review

The global grape and wine markets have undergone significant transformations over centuries, reflecting historical, cultural, and economic shifts. Historically, the grape and wine industry was dominated by traditional Old World producers, such as France, Italy, and Spain, which continue to play a leading role in production and exports (Soare et al., 2012). However, the emergence of New World producers, including the United States, Australia, and Chile, and the rise of emergent markets like China and India, have altered the global landscape (Rebelo & Baptista, 2024). Globalization and technological advancements have facilitated these changes, enabling new producers to adopt innovative techniques and expand their market reach. The increased accessibility of global trade networks has also influenced consumption patterns, with growing demand for diverse wine varieties and sustainable production methods (OIV, 2023a, 2023b).

Global market trends reveal a diversification of production and consumption. While traditional producers maintain their dominance, regions like South America, South Africa, and Asia have shown remarkable growth. Technological innovations in viticulture and enology, coupled with international trade policies, have reshaped production and marketing strategies. Global consumer preferences have shifted towards organic and biodynamic wines, driven by environmental concerns and health awareness. These trends underscore the importance of understanding global market dynamics to contextualize the developments in Portugal and Türkiye (Meininger's International, 2024).

Portugal's grape and wine market is deeply rooted in its cultural and historical heritage. The country is globally renowned for its diverse wine portfolio, particularly fortified wines like Port and Madeira, alongside high-quality still wines. Key wine regions such as the Douro Valley, Alentejo, and Vinho Verde exemplify Portugal's regional strengths, benefiting from geographical indications that enhance their market value (Rebelo & Baptista, 2024). The market has evolved through investments in modernization and sustainability, with a growing focus on organic wine production. However, Portugal faces challenges from climate change, increased competition, and the need to diversify its export markets. Despite these challenges, the country remains a pivotal player in the global wine industry, with stable domestic consumption and a strong export orientation (Soare et al., 2012).

Türkiye's grape and wine market, on the other hand, offers a unique perspective within a predominantly non-wine-drinking cultural context. Grapes in Türkiye serve broader uses, including table grapes and raisins, which dominate the market alongside a smaller but growing wine segment. Türkiye's viticulture heritage spans millennia, yet modern wine production faces significant regulatory and socio-political challenges. The sector's growth is hindered by stringent advertising restrictions, high taxes, and limited domestic consumption (Meininger's International, 2024). Despite these barriers, Türkiye's native grape varieties, such as Narince and Kalecik Karasi, and the increasing quality of boutique wineries present opportunities for niche market growth. The country's strategic geographical position and rich viticultural history provide a foundation for future expansion, particularly in export markets (Rebelo & Baptista, 2024).

Existing comparative studies in grape and wine markets highlight the diversity in production methods, consumption patterns, and market dynamics across regions. Comparative analyses often focus on the economic and cultural factors that shape market evolution, providing strategic insights into global competitiveness. Studies comparing Old World and New World producers emphasize the role of tradition *versus* innovation, while emergent markets showcase the impact of globalization and shifting consumer preferences (OIV, 2023a, 2023b; Soare et al., 2012).

The theoretical framework underpinning this study integrates economic and agricultural theories relevant to grape market analysis. Business and marketing theories provide a lens to understand market segmentation, strategic positioning, and consumer behavior within the industry. Market dynamics are influenced by economic factors such as production costs, trade policies, and consumer income levels. Furthermore, the evolution of consumer preferences highlights the increasing demand for sustainability, quality, and innovation in grape and wine products. These theoretical insights offer a robust foundation for analyzing the comparative trajectories of Portugal and Türkiye's grape and wine industries (Meininger's International, 2024).

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Methodology

This study employs a robust methodological framework to explore the evolution and dynamics of the grape and wine markets in Portugal and Türkiye. It integrates statistical data from multiple authoritative sources, analytical techniques, and a SWOT analysis to provide a comprehensive understanding of these markets within the global context.

The data used in this study were collected from globally recognized organizations such as the Food and Agriculture Organization (FAO) and the International Organization of Vine and Wine (OIV), alongside national statistical agencies like the Instituto Nacional de Estatística (INE - National Institute of Statistics) in Portugal and Turkish Statistical Institute in Türkiye. The FAO provided essential data on global grape production and utilization, including metrics for wine, table grapes, and raisins, while the

OIV offered insights into international wine market trends and trade flows. National sources contributed granular data on regional production, export patterns, and consumption trends. This diverse set of data sources ensures the reliability and relevance of the study's findings (Akdemir, 2022; FAO, 2023a, 2023b, 2023c; GAIN, 2022, 2024; Guler et al., 2021; OIV, 2023a, 2023b; Soylemezoglu et al., 2016; TGDF, 2021; TÜİK, 2024).

The analytical approach combines comparative analysis, time-series analysis, and market trend analysis. Comparative analysis was used to identify similarities and differences between the Portuguese and Turkish grape and wine markets, focusing on vineyard area, grape production, and market segmentation. Time-series analysis enabled the identification of trends and patterns over the past two decades, while market trend analysis provided insights into emerging opportunities and threats within these industries. To complement these techniques, a SWOT analysis was conducted to systematically evaluate the strengths, weaknesses, opportunities, and threats associated with the grape and wine markets in both countries (Meininger's International, 2024; Rebelo & Baptista, 2024).

The criteria for selecting Portugal and Türkiye as case studies were grounded in their distinct positions within the global grape and wine markets. Portugal represents an established Old-World producer with a strong export orientation and a rich viticultural tradition. In contrast, Türkiye offers a unique perspective as a country with a predominantly non-wine-drinking culture, yet significant grape production for diverse applications, including table grapes and raisins. These contrasting profiles provide a valuable comparative framework to understand the diverse strategies and challenges within the global grape and wine markets (OIV, 2023a, 2023b; Soare et al., 2012).

The scope of this study encompasses an analysis of the evolution and current dynamics of the grape and wine industries in Portugal and Türkiye, with a particular focus on production, utilization, trade flows, and market trends. However, several limitations should be acknowledged. Data constraints, including the availability and comparability of historical statistics, posed challenges in aligning metrics across sources. Additionally, cultural and regulatory nuances may have influenced the interpretation of some data points. Despite these limitations, the study provides a comprehensive framework to analyze the strategic positioning of these two markets within the global context (Akdemir, 2022; GAIN, 2022,

2024; Guler et al., 2021; Meininger's International, 2024; Soylemezoglu et al., 2016; TGDF, 2021; TUIK, 2024).

Results

The results of this study provide an in-depth analysis of the global grape and wine markets, focusing on Portugal and Türkiye's market dynamics, as well as a comparative perspective to identify strategic opportunities and risks. The findings highlight global production trends, key players, and emerging markets, alongside detailed insights into the evolution of grape utilization and wine production in Portugal and Türkiye.

The global grape and wine markets exhibit diverse trends in production, consumption, and trade, as seen in figures below (figures 1, 2 and 3). Statistical data from the FAO and OIV indicate that vineyard areas worldwide have shown a slight decline in recent years, yet production remains stable due to technological advancements and improved agricultural practices. Grapes serve multiple purposes, including wine production, table consumption, and raisin production. The leading wine-producing countries remain France, Italy, and Spain, while emerging markets such as China and South Africa are gaining prominence (OIV, 2023a, 2023b). Technological innovations, such as precision viticulture and sustainable practices, have played a significant role in shaping production trends.

International trade policies and tariffs significantly impact market dynamics. The reduction of trade barriers through agreements such as the EU's free trade policies has facilitated market access for key players, while emerging markets face challenges from protectionist measures. Innovations in logistics and marketing, including e-commerce platforms, have further expanded market reach (Meininger's International, 2024).

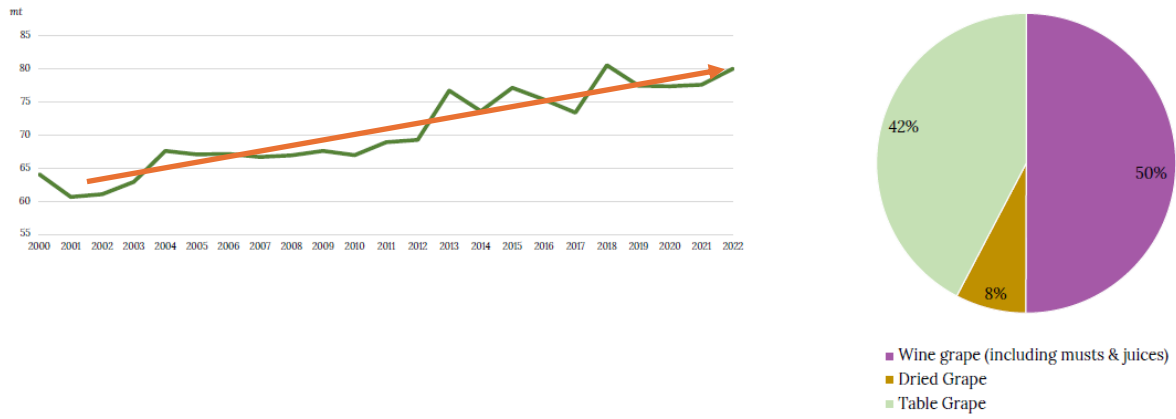


Figure 1. Global Grape production (OIV, 2023a)

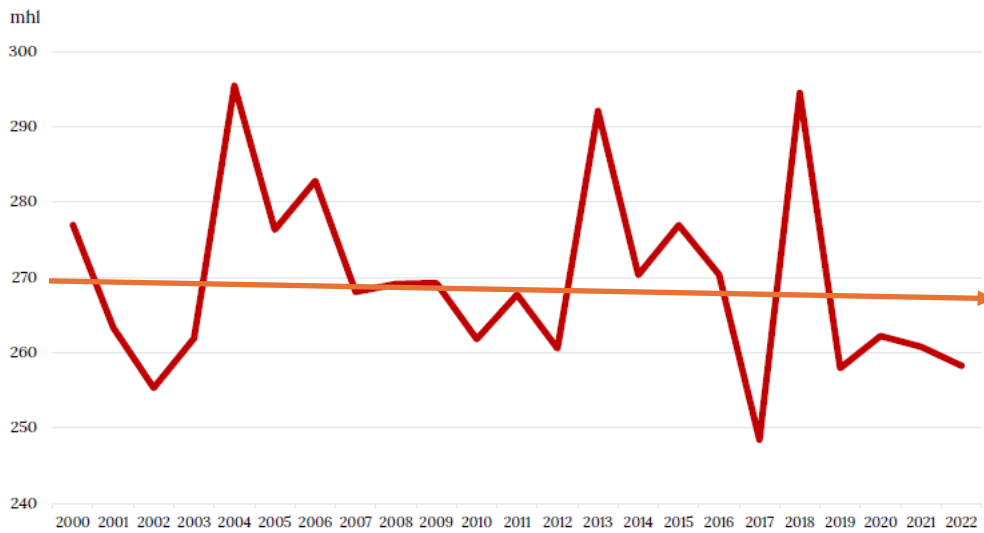


Figure 2. Global Wine production (OIV, 2023a)

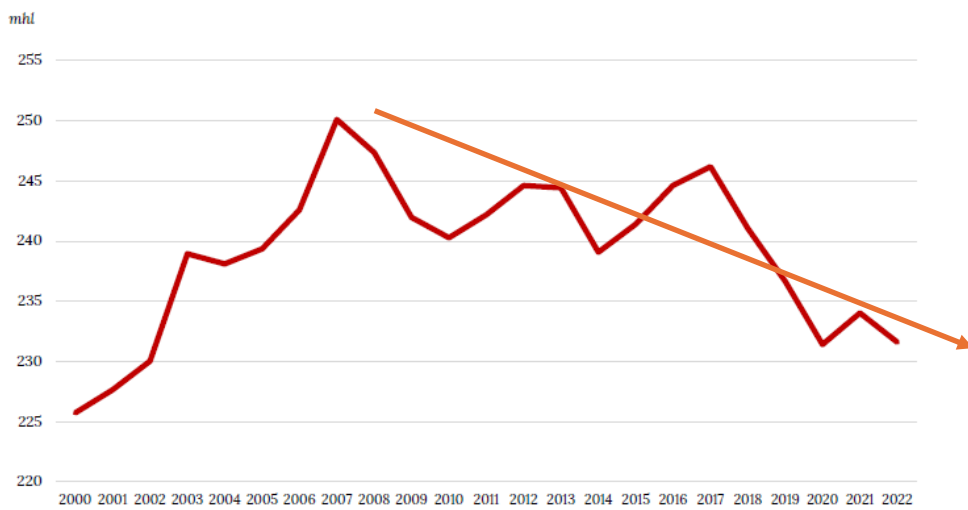


Figure 3. Global Wine consumption (OIV, 2023a)

Portugal’s grape and wine market has evolved significantly, reflecting a blend of tradition and innovation. The country’s viticulture is deeply rooted in history, with the Douro Valley and Alentejo regions standing out as key contributors to its global reputation. Vineyard areas in Portugal have remained stable, focusing on high-quality grape varieties predominantly used for wine production. Portuguese wines, including Port and Madeira, have strong market positions, bolstered by geographical indications (Rebelo & Baptista, 2024).



Figure 4. Vineyard Distribution and Key Wine Regions in Portugal (IVV, 2023)

Wine production and exports play a crucial role in Portugal’s economy. The country’s export-oriented strategies have allowed it to maintain a competitive edge in international markets. However, climate change poses a challenge to consistent production. *Per capita* wine consumption in Portugal remains one of the highest globally, emphasizing the cultural significance of wine (Soare et al., 2012). Türkiye’s grape and wine market presents a contrasting narrative. With a predominantly non-wine-drinking culture, Türkiye’s grape industry is heavily oriented toward table grapes and raisins, although wine production has shown modest growth. Native grape varieties such as Narince and Kalecik Karasi highlight the potential for niche markets. Regulatory and socio-political challenges, including advertising restrictions and high taxes, have limited market expansion (Meininger's International, 2024).

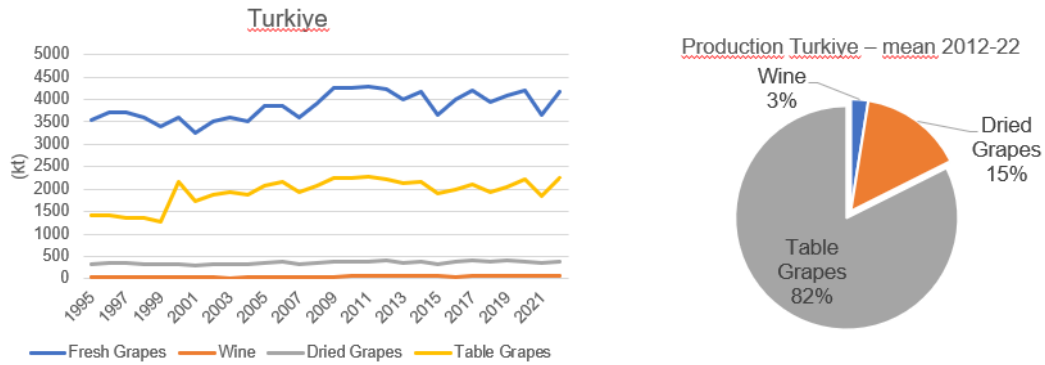


Figure 5. Grape Production by Use in Türkiye (OIV, 2023a)

Despite these barriers, Türkiye’s geographical position and viticultural history present opportunities for growth, particularly in export markets. *Per capita* wine consumption remains low, reflecting cultural and economic constraints. However, non-wine grape segments continue to dominate, with raisins being a major export product (Akdemir, 2022; GAIN, 2022, 2024; Guler et al., 2021; Soylemezoglu et al., 2016; TGDF, 2021; TÜİK, 2024).

The comparative analysis reveals stark differences and notable similarities between Portugal and Türkiye. While Portugal excels in wine production and exports, Türkiye’s strength lies in its diverse grape applications. Regulatory and economic factors significantly shape both markets. For example, Portugal benefits from EU trade agreements, while Türkiye faces challenges from its regulatory environment.

Portugal’s opportunities lie in expanding its export markets and investing in sustainable practices, while Türkiye could diversify its grape products and enhance its wine market through targeted strategies. However, both countries face threats from climate change and global competition. For Portugal, maintaining its market position requires navigating these challenges effectively. For Türkiye, socio-political factors and potential oversupply in non-wine grape segments present significant obstacles.

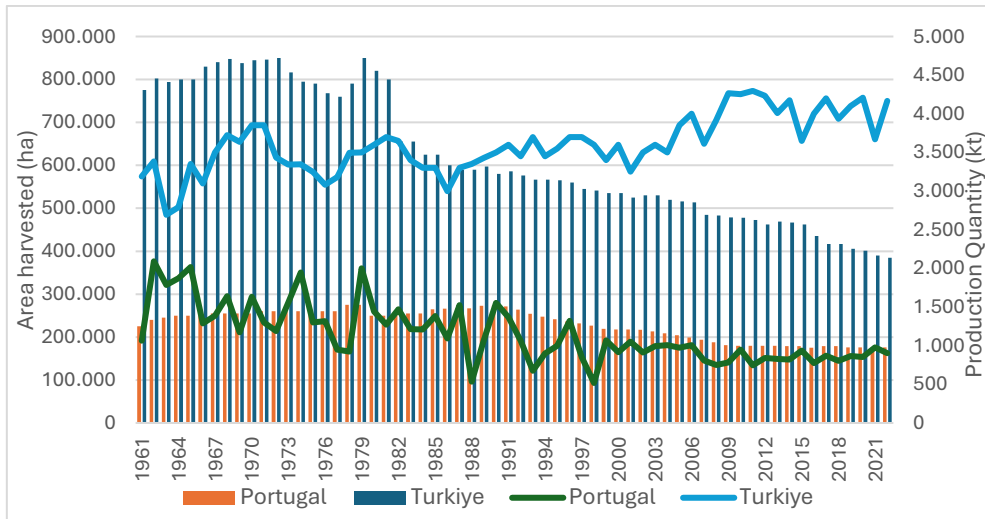


Figure 6. Comparative Analysis of Portugal and Türkiye's Area and Grape production 1961-2021 (FAO, 2023)

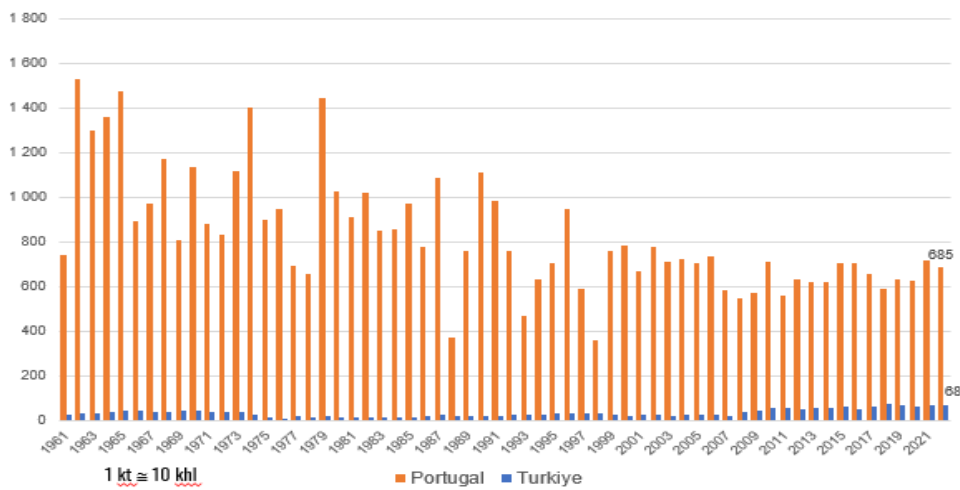


Figure 7. Comparative Analysis of Portugal and Türkiye's Wine production 1961-2021 (FAO, 2023)

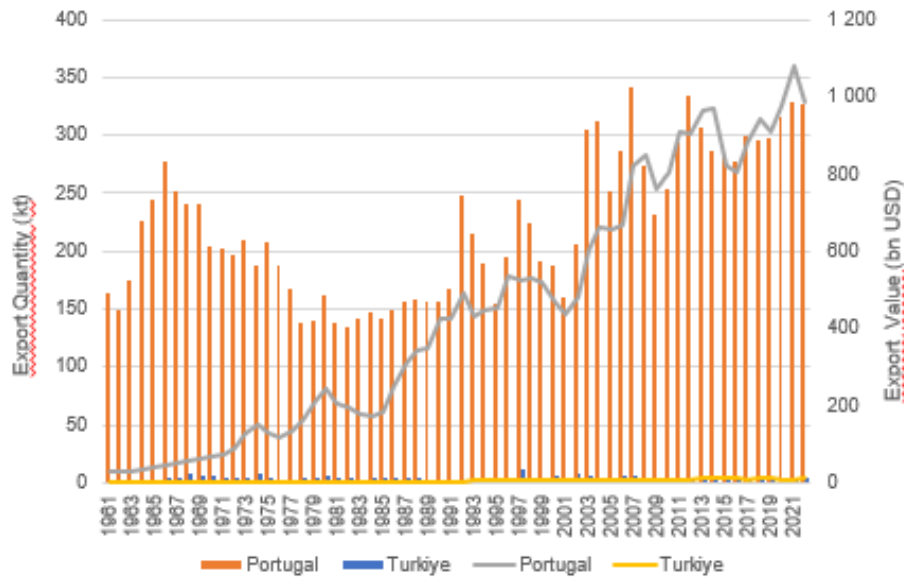


Figure 8. Comparative Analysis of Portugal and Türkiye's Wine exports 1961-2021 (FAO, 2023)

The strategic market positioning of both countries emphasizes leveraging their unique strengths. Portugal's focus on high-quality wines with geographical indications positions it well in premium markets. Türkiye's potential lies in capitalizing on its native grape varieties and expanding its presence in international markets, as seen in both SWOT analysis below:

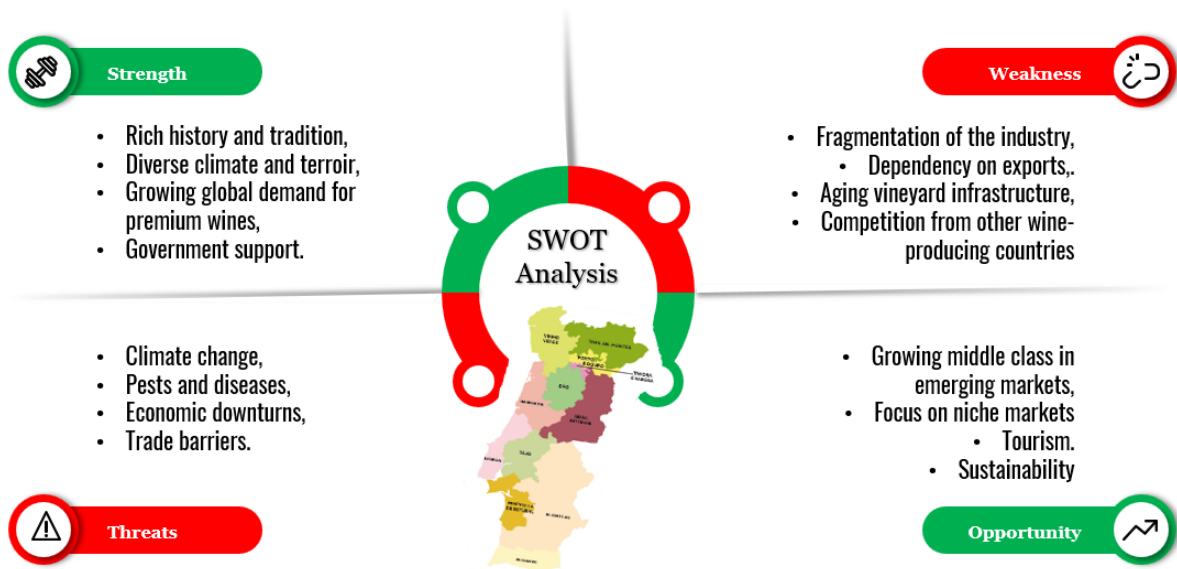


Figure 9. SWOT analysis for Portugal concerning wine industry

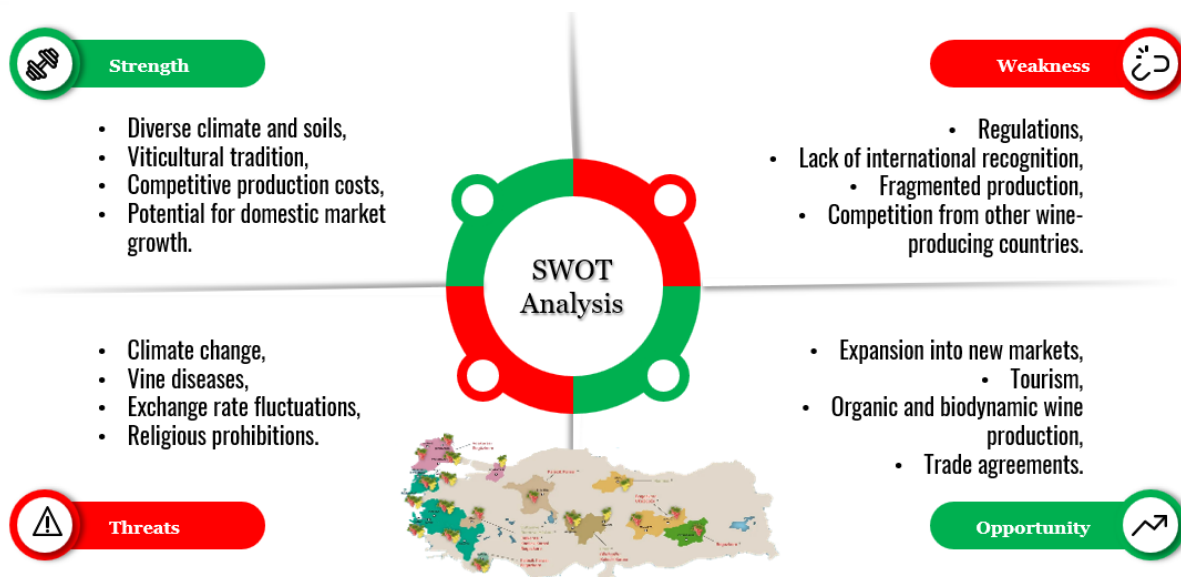


Figure 10. SWOT analysis for Türkiye concerning wine industry

In conclusion, this study highlights the evolving dynamics of the global grape and wine markets, situating Portugal and Türkiye within this context. The findings underscore the need for strategic interventions by stakeholders to address challenges and capitalize on emerging opportunities.

Conclusions

This research has provided a comprehensive analysis of the global grape and wine markets, with a specific focus on Portugal and Türkiye. It has highlighted the dual role of grapes as a cornerstone for both wine production and other market segments, such as table grapes and raisins. The findings emphasize the contrasting trajectories of Portugal and Türkiye within these industries, shaped by their historical, cultural, and regulatory contexts.

The global grape market remains a dynamic landscape, with approximately 80 million tons of fresh grapes produced annually. Türkiye ranks as the 6th largest producer globally, contributing significantly to the dried and table grape segments. In contrast, Portugal, ranked 19th, primarily channels its grape production into wine, positioning itself as the 10th largest wine producer worldwide (OIV, 2023a, 2023b). The disparity in grape utilization reflects their divergent market strategies: Portugal adds value through wine exports and premium branding, while Türkiye focuses on the volume and diversity of grape products.

For policymakers and industry stakeholders, several recommendations arise from this study. In Portugal, efforts should focus on diversifying export markets, mitigating the impacts of climate change on viticulture, and continuing investments in sustainable and organic wine production. The preservation and promotion of geographical indications, such as those associated with the Douro and Alentejo regions, are crucial for maintaining competitiveness in premium markets. In Türkiye, stakeholders should capitalize on the country's strength in table and dried grape segments while fostering niche markets for native wine varieties. Addressing regulatory and socio-political barriers will be pivotal in unlocking the potential of the Turkish wine industry (Meininger's International, 2024; Rebelo & Baptista, 2024).

Future research should delve deeper into the non-wine uses of grapes, exploring their economic impact and potential for innovation. For example, studies on consumer behavior toward dried and table grapes in emerging markets could provide actionable insights. Additionally, research on business and marketing strategies tailored to the unique strengths of each country's grape products can enhance their global positioning. There is also a need to examine the interplay between cultural and regulatory factors and their influence on market dynamics, particularly in non-traditional wine-consuming nations like Türkiye.

In summary, Portugal and Türkiye represent two contrasting yet complementary profiles in the global grape and wine markets. Portugal's strength lies in its wine production and export strategies, while Türkiye excels in leveraging the diversity of grape products. Both nations face unique challenges and opportunities, but their ability to adapt and innovate will determine their future trajectories. By integrating strategic recommendations and addressing identified gaps, stakeholders in both countries can ensure sustainable growth and competitiveness in the rapidly evolving global market.

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